gene is E1A.

5. (amended) The adenovirus vector according to claim 3, wherein the adenovirus early gene is E1B.

B2

6. (amended) The adenovirus vector of claim 1, wherein the gene essential for adenoviral replication is the adenovirus E4 gene.

7. (amended) The adenovirus vector of claim 1, wherein the gene essential for adenoviral replication is an adenovirus late gene.

8. (amended) The adenovirus vector of claim 1, wherein the cell type-specific TRE is prostate cell specific.

55. The adenovirus vector of Claim 3, wherein the adenovirus early gene is E2.

56. (amended) The adenovirus vector of claim 1, wherein the TRE is selected from the group consisting of a promoter and an enhancer.

B3

57. (amended) The adenovirus vector of Claim 1, wherein the cell-type specific TRE is selected from the group consisting of an alpha fetoprotein TRE, a DF3-TRE, a tyrosinase-TRE, a CEA-TRE, a surfactant protein-TRE, and an ErbB2-TRE.

58. The adenovirus vector of Claim 56, wherein the promoter is selected from the group consisting of alpha fetoprotein, DF3, tyrosinase, CEA, surfactant protein, and ErbB2 promoters.

59. (amended) The vector of claim 1, wherein said vector contains a heterologous coding sequence that is expressed from said vector.

B4

60. (amended) The vector of claim 1, wherein said vector is encapsulated in an adenovirus coat.

61. A cell comprising an adenovirus vector comprising an adenovirus gene essential for replication under transcriptional control of a cell-type specific transcriptional response element

(TRE), wherein said adenovirus gene essential for replication is selected from the group consisting of E1A, E1B, E2 and E4, and wherein said TRE functions in said cell so that replication of the vector occurs in said cell.

62. The cell of claim 61, wherein said TRE is selected from the group consisting of a promoter and an enhancer.

63. The cell of claim 62, wherein the cell-type specific TRE is selected from the group consisting of alpha fetoprotein, DF3, tyrosinase, CEA, surfactant protein, and ErbB2.

64. The cell of claim 61, wherein said cell is a tumor cell.

65. The cell of claim 61, wherein said vector encodes a heterologous gene product, and wherein said vector expresses said heterologous gene product in the cells of a target tissue.

66. The cell of claim 65, wherein said heterologous gene product provides anti-tumor activity in the cells of said tissue.

67. A method of producing a cell-type specific adenovirus vector, said vector comprising an adenovirus gene essential for adenoviral replication under transcriptional control of a cell-type specific TRE comprising culturing the cell of claim 61 and recovering said vector from said cell.

B5

68. (amended) A cell comprising a cell-type specific adenovirus vector encapsulated in an adenovirus coat, said vector comprising an adenovirus gene essential for adenoviral replication under transcriptional control of a cell type-specific transcriptional response element (TRE), wherein said adenovirus gene essential for adenoviral replication is selected from the group consisting of E1A, E1B, E2 and E4, and wherein said TRE functions in said cell so that replication of the encapsulated vector occurs in said cell.

69. The cell of claim 68, wherein said TRE is selected from the group consisting of a promoter and an enhancer.

70. The cell of claim 69, wherein the promoter is selected from the group consisting of alpha fetoprotein, DF3, tyrosinase, CEA, surfactant protein, and ErbB2 promoters.

71. The cell of claim 68, wherein said cell is a tumor cell.

72. The cell of claim 68, wherein said encapsulated vector encodes a heterologous gene product, and wherein said vector expresses said heterologous gene product in the cells of a target tissue.

73. The cell of claim 72, wherein said heterologous gene product provides anti-tumor activity in the cells of said tissue.

74. A method of producing a cell-type specific adenovirus vector encapsulated in an adenovirus coat, said vector comprising an adenovirus gene essential for adenoviral replication under transcriptional control of a cell-type specific transcriptional response element (TRE) comprising

(a) culturing a cell comprising a cell-type specific adenovirus vector encapsulated in an adenovirus coat, said vector comprising an adenovirus gene essential for adenoviral replication under transcriptional control of a cell-type specific transcriptional response element (TRE), wherein said adenovirus gene essential for adenoviral replication is selected from the group consisting of E1A, E1B, E2 and E4, and wherein said TRE functions in said cell so that replication of the encapsulated vector occurs in said cell; and

(b) recovering said encapsulated adenoviral vector from the culture.

75. A producer cell line comprising the cell of claim 61.

76. A producer cell line comprising the cell of claim 68.

Add the following new claims:

---

77. (new) A tissue-specific replication-conditional adenovirus vector comprising:

a heterologous tissue-specific transcriptional regulatory sequence operably linked to the coding region of a gene that is essential for the replication of said vector, wherein said coding region is selected from the group consisting of E1a, E1b, and E2 and E4 coding regions.

78. (new) An isolated cell containing a tissue-specific replication-conditional adenovirus